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ABSTRACT

The Racial Attitudes and Perceptions Survey (RAPS) consists of four scales: perceived discrimination against blacks; attitude toward racial interaction; feelings of reverse racism; and racial climate. This instrument was administered to approximately 10,000 military personnel in a variety of research designs to determine the impact of race relations training programs on attitudes and perceptions. This training included 18-hour unit training programs, 4-hour courses in formal schools, and 2- to 4-week race relations discussion leader courses. Training impact, in general, was found to be very small as measured by change on RAPS scale scores. Where changes occurred, they tended to be in the following directions: higher scores, for perceived discrimination against blacks and attitude toward racial interaction, and lower scores for feelings of reverse racism. No conclusions were made regarding perception of racial climate. Trained subjects scored higher on content-type questions than did untrained subjects, and training was generally considered valuable. Course instructors appeared to have diverse instructional goals. A significant testing effect was noted when untrained control group subjects were administered the test twice; scores declined on the post test. The RAPS was found to be useful in evaluating race relations programs, but should be used along with other evaluation methods. (Author/CP)

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Technical Paper 339

THE UTILITY OF THE RACIAL ATTITUDES AND PERCEPTIONS SURVEY (RAPS) FOR ASSESSING IMPACT OF RACE RELATIONS TRAINING PROGRAMS IN THE MILITARY

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September 1978

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The Racial attitudes and perceptions survey (RAPS) was administered to approximately 10,000 military personnel in the Army, Air Force, Marine Corps, and the Navy in a variety of research designs to assess the utility of the instrument for measuring impact of race relations training. Results indicated that the RAPS can be used for this purpose, but only as a part of an evaluation package specifically designed to assess race relations training impact.

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FOREWORD

Since 1972, the Army Research Institute (ARI) has been active in research on the policy, operational problems, and programs of the Army's Race Relations/Equal Opportunity (RR/EO) program. In 1973, in response to a specific requirement of the Assistant Secretary of Defense (M&RA), ARI developed the Racial Attitudes and Perceptions Survey (RAPS). The RAPS was designed for use by installation commanders service-wide to assess racial climate in the installations. ARI Technical Paper 338 describes development of the RAPS; this technical paper describes research involved in determining utility of the RAPS in measuring impact of race relations training in the military. The research was conducted under Army Project 2Q162108A743, "Race Harmony Promotion Programs," in the FY 74 Work Program as an in-house effort augmented by a contract with Human Sciences Research, Inc., under contract DAHC 19-73-C-0037.

Since 1974, the Army Equal Opportunity Research Program has been conducted at the Presidio of Monterey, Calif., Field Unit.

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THE UTILITY OF THE RACIAL ATTITUDES AND PERCEPTIONS SURVEY FOR ASSESSING IMPACT OF RACE RELATIONS TRAINING PROGRAMS IN THE MILITARY

BRIEF

Requirement:

To determine whether the Racial Attitudes and Perceptions Survey (RAPS) can be used to measure the impact of race relations training in the Army, Air Force, Marine Corps, and the Navy.

Procedure:

The Racial Perceptions Inventory section of the RAPS consists of four scales: Perceived Discrimination Against Blacks (PDB), Attitude Toward Racial Interaction (ATI), Feelings of Reverse Racism (FRR), and Racial Climate (RC). This instrument was administered to approximately 10,000 personnel in the Army, Air Force, Marine Corps, and Navy in a number of research designs to determine what effect race relations training programs had on attitudes and perceptions. Race relations training in all services was examined. This training included the 18-hour unit training program, 4-hour courses in formal schools, and the 2- to 4-week race relations discussion leader courses.

Findings:

Considerable variation in the effect of training on RAPS scores was found. For some courses, there were no effects. For other courses, there were effects in only one or two areas.

The overall findings are summarized as follows:

1. Race relations training has an impact on attitudes and perceptions as measured by the RAPS.

2. The impact, in general, was very small when defined in terms of actual change on RAPS scale scores. This was true even though there are statistically significant results.

3. Where changes occurred as the result of training, they tended to be in the following directions: higher PDB scores, higher ATI scores, and lower FRR scores. There was no clearly defined direction in which RC scale scores would be expected to go.

4. There was evidence that trained subjects scored higher on content-type questions than did untrained subjects.

5. Those who received training generally considered it to be valuable and important. They reported that the quality of training was good and said that they were more highly motivated to try to eliminate racial discrimination.

6. Instructors who actually taught the courses appeared to have diverse goals and had different opinions about the best targets for training efforts.

Utilization of Findings:

The RAPS can be used to evaluate race relations, but only as a part of a package designed specifically for evaluation purposes; the RAPS should not be used alone.

THE UTILITY OF THE RACIAL ATTITUDES AND PERCEPTIONS SURVEY FOR ASSESSING IMPACT OF RACE RELATIONS TRAINING PROGRAMS IN THE MILITARY

CONTENTS

	Page
INTRODUCTION	1
Research Objective	1
Race Relations Training Programs in the Military	2
METHOD	3
Description of the Instruments	3
Data Collection Procedures	4
Sample	5
Experimental Design	6
RESULTS AND DISCUSSION	8
Effects of Unit Race Relations Training	9
Effects of Race Relations Training on School Samples	23
Knowledge of Race Relations Content Items	34
Evaluations of Race Relations Training	36
Interviews with Instructors	37
SUMMARY AND CONCLUSIONS	38
REFERENCES	43
APPENDIX	45
DISTRIBUTION	47

LIST OF TABLES

Table 1.	Sample locations	6
2.	Number of subjects requested and obtained	7
3.	Total sample--category of training on ATI scale	11
4.	Total sample--category of training on RC scale	11
5.	Service A--category of training on the PDB scale	12
6.	Service A--category of training on the ATI scale	13

J

Page

Table 7. Service A--category of training on the RC scale 13

8. Service B--category of training on ATI scale 14

9. Service B--category of training on RC scale 15

10. Changes from pretest to posttest for a sample receiving only 4 hours of the 18-hour curriculum 16

11. Effects of prior training level on pretest scores on FRR scale 20

12. Effects of prior training level on posttest scores on ATI scale 21

13. Effects of prior training level on pretest scores on the RC scale 22

14. Changes on scale scores for students attending race relations instructor training courses 24

15. Changes on scale scores from pretest to posttest for white students attending leadership school 25

16. Changes on scale scores from pretest to posttest for two samples of white students attending leadership school . . 25

17. Analysis of changes for officers with and without race relations training 26

18. Analysis of changes for white students at technical school courses with and without race relations training 27

19. Analysis of changes from pretest to posttest for white recruit samples with and without race relations training 28

20. Summary of significant training effects on the PDB scale 30

21. Summary of significant training effects on the ATI scale 31

22. Summary of significant training effects on the FRR scale 32

23. Summary of significant training effects on the RC scale 33

K

Page

Table 24. Average scores for black and white, trained and untrained, respondents on the content questionnaire . . 35

25. Average scores on content questionnaire for students at different levels of race relations training 35

26. Percentage of respondents reporting aspects of training courses as valuable 36

A-1. Percent variance contribution (R^2) by demographic variable and design 46

LIST OF FIGURES

Figure 1. Changes on the ATI scale for trained and control groups 18

2. Changes on the PDB scale for blacks and whites 19

3. Changes on the FRR scale for blacks and whites 19

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THE UTILITY OF THE RACIAL ATTITUDES AND PERCEPTIONS SURVEY FOR ASSESSING IMPACT OF RACE RELATIONS TRAINING PROGRAMS IN THE MILITARY

INTRODUCTION

In the early 1970's, as the military services initiated new and more comprehensive programs aimed toward improving race relations and equal opportunity, a need arose to measure the changes these programs were producing. How effective were the programs? To what extent did they achieve their objectives?

One of the few available measuring instruments that had promise for meeting this need was the Racial Perceptions Inventory (RPI), developed at Walter Reed Army Institute of Research (Borus et al., 1972). The Department of Defense tasked the Department of the Army to establish the reliability and validity of the RPI for assessing race relations program effectiveness in the military services (Department of Defense, 1972). The Army Research Institute (ARI) was given the mission by the Office of the Chief of Research and Development, Department of the Army. Accordingly, a research project was initiated to determine the reliability and validity of the RPI and to further develop it as an instrument to measure the impact of race relations programs.

Research Objective

The major research objective was to establish a way of measuring changes resulting from race relations programs. This objective required an instrument that could reliably measure racial attitudes and perceptions; in addition, it required an assessment of the usefulness of the instrument for measuring the impact of race relations programs, specifically training programs. The research involved in developing and validating the Racial Attitudes and Perceptions Survey (RAPS) is reported in Hiett et al. (1974). The present report is concerned with assessing the utility of the RAPS for measuring impact of race relations training programs in the military services. The RAPS is a paper-and-pencil questionnaire that measures the attitudes and perceptions of military personnel about day-to-day racial matters. Its primary purpose is to provide objective information to the installation commander (or the post Race Relations/Equal Opportunity (RR/EO) Officer) to aid him in his general program to reduce racial discrimination and promote racial harmony.

The RAPS consists of two parts: the Racial Perceptions Inventory, which measures racial attitudes and perceptions; and the Incidence of Discriminatory Behavior (IDB), which measures the frequency with which selected discriminatory behaviors are perceived to occur. The research reported herein concerns only the RPI portion of the RAPS, since the IDB is inappropriate as a direct measure of training effects.

Race Relations Training Programs in the Military

In January 1970, the Interservice Task Force on Education in Race Relations was formed to develop an education program in race relations to be used throughout the armed forces. The Defense Race Relations Institute (DRRI) developed from this effort and currently has the mission of conducting training for military personnel designated as Instructors in Race Relations. In 1973, the year in which this research was conducted, the Department of Defense required a minimum of 18 hours of race relations training to be conducted annually for members of each service. Although modified somewhat by service and for each course, the general objectives of the DRRI core curriculum were as follows (Department of Defense, 1971):

1. Provide all service personnel the opportunity to become aware of and fully understand current DoD, service, and command equal opportunity and treatment policies and directives.

2. Provide service personnel with continuing opportunities to examine, analyze, and discuss solutions of real-life problems in the military intergroup relationships.

3. Facilitate behavioral changes in the area of intergroup relations among service personnel that will result in enhancing efficiency and effectiveness in the accomplishment of assigned missions.

4. Prepare service personnel to prevent or deal more effectively with racial and ethnic group conflict situations.

5. Provide the commander with an additional channel through which he can obtain current information and recommendations relative to the state of racial or ethnic relations in his organization.

6. Maintain the good order and discipline of the military services through teaching all service members that interracial problems can be solved more effectively through dialog than by violence.

All services followed the pattern of instruction established by DRRI except for the Marine Corps, which had developed a 20-hour course based on different roots from the DRRI curriculum. In general, the pattern of instruction encompassed six major areas: (a) DoD and service race relations policies and goals, (b) personal racism, (c) institutional racism, (d) communication problems, (e) the extension of racial problems in the civilian community to the armed forces and discussions of racial and ethnic cultures, and (f) racial problems in the local environment.

In addition to the 18-hour curriculum given at unit levels, the Army conducted race relations training in Leadership and Service Schools, in Basic Combat Training, and in Discussion Leader Courses.

The Navy, in addition to the 18-hour course, conducted race relations training in Technical Basic Schools and in Petty Officer, Chief Petty Officer, and Officer Schools. Discussion Leader Training was also conducted by the Navy.

The Air Force program, like the Army and Navy, followed the DRRI curriculum for the major portion of its human relations training. This training was also conducted in the Basic Airman Training Course, Leadership Schools, and NCO Academies. The Air Force also conducted a Discussion Leader Course.

The Marine Corps did not follow the DRRI curriculum. The basic program in the Marine Corps included 20 hours of instruction and individual action effort. The first phase was a 3-hour orientation designed to promote participation in the subsequent phases; the second phase was 17 hours of small-group discussions; and the third phase was an individual action effort in which the individual was encouraged to make positive contributions in human relations. Human relations training was not given in the Marine Corps in formal military schools.

METHOD

Description of the Instruments

The following instruments were used in this research: the RPI, a content knowledge, and a subjective reactions questionnaire. The latter two were administered only to Army samples.

The Racial Perceptions Inventory (RPI) consisted of items to which subjects were asked to respond on a 5-point scale ranging from "agree strongly" to "disagree strongly." The items were primarily constructed to provide some indication of the respondents' attitudes and perceptions about racial matters. Previous research indicated that these items measured attitudes and perceptions in four conceptual areas:

- Perceived Discrimination Against Blacks (PDB)
- Attitude Toward Racial Interaction (ATI)
- Feelings of Reverse Racism (FRR)
- Racial Climate (RC)

Previous research showed that the scales were highly reliable and possessed content validity (Hiett et al., 1974). The basic instrument contained 73 RPI items, 13 demographic items, and 11 items dealing with experience in race relations training.

The content questionnaire had 15 questions to determine knowledge of equal opportunity goals, stereotypes, personal racism, and others. The questionnaire was intended to measure gains in knowledge that might occur as the result of training.

The subjective reactions questionnaire had 13 questions that asked about the value of training programs, their quality, and their effects. This instrument was used only among groups that had received race relations training.

Data Collection Procedures

Prior to the surveys, an ARI representative visited each location and met with local project officers to provide sample requirements and answer questions about the purpose of the project.

Project officers were asked to select the samples, to arrange a time and place for the questionnaires to be administered, and, at Design III locations, to arrange for half of the sample to receive training.

Biracial survey teams visited the sites, usually within 2 weeks of the advance party visit, and administered the questionnaires. A standard introduction was developed that explained the purpose of the project to the subjects, assured the confidentiality of their responses, and encouraged honesty and frankness. The project officers were responsible for identifying to the survey team individuals who were in the trained or experimental groups and individuals in the untrained or control groups. Retesting procedures were similar, except that the introduction was changed to explain the reason for the retest. That introduction pointed out that many individuals change their minds about issues raised in the questionnaire and they were being asked to indicate their "current" feelings.

In the designs that included both a pretest and a posttest, it was necessary to match questionnaires of each respondent. Subjects were requested, therefore, to indicate their Social Security Account numbers on the questionnaires. There was some concern that subjects might be afraid to answer the questionnaire because it would be possible to identify them. This problem was discussed in detail in the introduction to both the pretest and the posttest administrations, and confidentiality was assured.

In general, the evidence indicated that obtaining the Social Security number was not a factor in the results. It was collected at some installations and not at others, and the reactions of respondents at all locations seemed to be similar. Although the effects on the results were never tested directly, the overall comparability from installation to installation suggested that the request for Social Security numbers was not a factor.

Several difficulties arose during the data collection phase of the project. First, project officers did not always provide the numbers of subjects requested. Second, subjects were sometimes incorrectly assigned to experimental and control groups and participants were frequently notified that they were to participate in the survey only a short time before the administration. This tended to disrupt work schedules, and many subjects expressed resentment at the inconvenience.

The short advance notice appeared to occur at all grade levels; however, after an explanation of the problems involved in getting the large numbers of people together, most people seemed satisfied and continued to participate in the survey.

The incorrect assignment of individuals to the trained and untrained groups was dealt with during the analysis of the data. Respondents had been asked to indicate whether they had any race relations training in the military, what training they had received, and when they had received it. Using this information, it was possible to reassign individuals based on the self-reports of their own race relations training experiences. It was not possible, however, to know how accurate this procedure was.

Sample

It was determined that the sample would have to include at least 250 participants so that changes as small as 5% due to training could be detected. This figure was based on findings in the earlier development of the RAPS and the desire to detect as statistically significant differences in RPI scale scores of at least 5%. In general, therefore, the services were requested to provide samples of 125 trained and 125 untrained people at each location as part of the research design. This number was also large enough to include a relatively representative sample for each site across race and rank.

During 1973, research teams collected data for two types of samples at each of 36 installations in the continental United States, Europe, and the Far East (Table 1), basewide and school. Basewide samples were samples of permanent party personnel at a given installation. This type of sample was used primarily to evaluate the impact of the 18-hour curriculum. The requirement for the basewide sample was 125 at each installation, with the sample proportionately distributed by rank and reflecting a 75% white and 25% black composition.

School samples were samples of students attending formal courses of instruction within the military. The requirement was for 125 student personnel at a given installation similarly distributed by race and rank. However, it was necessary to accept an entire class as the sample regardless of the race or grade of the subjects.

Table 2 shows, by service, the samples that were requested and obtained. The shortfalls were greatest among the basewide samples.

Table 1

Sample Locations

Army	Navy
Army Base Command, Japan	Subic Bay Naval Station, Philippines
25th Inf. Div. Support Command, Hawaii	U.S.S. Inchon
101st Airmobile Division, Ft. Campbell, Ky.	Naval Air Station, Imperial Beach, California
Ft. Richardson, Alaska	U.S.S. Enterprise
Ft. Benning, Georgia	Recruit Training Center, San Diego, California
Quartermaster School, Ft. Lee, Virginia	Navy Supply School, Athens, Georgia
Engineer School, Ft. Belvoir, Virginia	Navy Tech. Training Center, Memphis, Tennessee
Basic Combat Training, Ft. Ord, California	Navy Postgraduate School, Monterey, California
Ordnance School, Aberdeen Proving Ground, Maryland	Naval Training Center, San Diego, California
Air Force	**Marine Corps**
Randolph AFB, Texas	3rd Marine Division, Okinawa
MacDill AFB, Florida	1st Marine Aircraft Wing, Iwakuni, Japan
Basic Military Training, Lackland AFB, Texas	Headquarters, USMC
Ellsworth AFB, South Dakota	2nd Marine Division, Camp Lejeune, North Carolina
Bitburg AB, Germany	Marine Corps Recruit Depot, San Diego, Calif.
Sembach AB, Germany	Marine Corps Recruit Depot, Parris Island, S.C.
McClellan AFB, California	3rd Marine Division, Camp Pendleton, California
NCO Leadership School, MacDill AFB, Fla.	
NCO Academy, Langley AFB, Virginia	
Squadron Officer School, Maxwell AFB, Ala.	

Experimental Design

The most desirable design was one in which pretests and posttests were administered to experimental and control groups. However, this was not always possible because of the difficulty in arranging to survey each unit twice. Therefore, three designs were selected as models for examining the effects of training on attitudes and perceptions as measured by the RAPS.

Design I

Training ——→ Test

No Training ——→ Test

Where individuals were assigned to two groups randomly, this was a useful design for evaluating the effects of training (Kerlinger, 1964).

Table 2

Number of Subjects Requested and Obtained

Service[a]	Installation samples[b]		
	Requested	Obtained	Percentage
A	1,250	1,066	85
B	1,265	755	60
C	948	677	70
D	1,125	711	63
	School samples[c]		
	Requested	Obtained	Percentage
A	1,357	1,286	95
B	1,314	1,196	91
C	562	455	81
D	794	616	78

[a]Throughout the report individual services are labeled as Service A, B, C, and D to prevent comparison of the individual service programs, since such comparisons are not legitimate because of different types of programs and different types of subjects.

[b]At installations where pretests and posttests were given, only posttest results are counted, since that is the maximum number of questionnaires that can actually be matched and used in the analysis. An analysis was made of individuals who took the pretest but did not take the posttest, to see if they differed in their attitudes from those who did return for the posttest. The results indicated that there was no difference between the two groups.

[c]At some schools, samples were requested by course rather than by specific number of subjects. In those cases the sample obtained on the pretest is listed as the number requested.

At some locations everyone was receiving race relations training, and it was desirable to know if any changes in attitudes were taking place. This was measured using the following design:

Design II Test ——→ Training ——→ Retest

In this case there was no control group. Any change in responses between the first and second administrations of the questionnaire could not, therefore, be attributed exclusively to the race relations training.

A third design was also adopted for use:

Design III

Test ——→ Training ——→ Retest

Test ——→ No Training ——→ Retest

In this design, individuals were randomly assigned to one of two groups. Both groups were tested. One of the groups received race relations training; the other group acted as a control group. Both were retested.

In addition to the samples falling into these designs, some subjects directly involved in race relations training programs were selected for inclusion in the study. These included students and instructors at four race relations training schools and race relations instructors at selected installations.

The specific statistical techniques used in each of these analyses included analysis of variance and the Sandler's A-statistic. The analysis of variance was an unweighted cell mean analysis because of the variation in N for each cell and heterogeneity of variance (Edwards, 1968). Sandler's A is a statistic similar to the correlated t that allows calculation of the significance of change scores (Runyon & Haber, 1971). The results of the analyses are described by type of design in the following sections.

RESULTS AND DISCUSSION

The RPI was not specifically developed to measure the effects of training. However, race relations training is one part of the total race relations program of the services, and the effects of such training can be examined. It was recognized at the outset that there were problems in using the instrument in this way. Training might not affect the variables measured by the RPI but could affect other dimensions; also, the instrument might not be sufficiently sensitive to measure the changes. Thus, it would be impossible to draw any conclusion about the utility of the instrument or the effects of training if no changes in scale scores were found. However, if changes were detected, then it would be clear that the instrument was sensitive to such differences and that training was having some impact in the areas measured. Such a finding would indicate that the instrument would be useful for measuring race relations training impact on the four attitude and perception scales.

Despite this limitation, several expectations were developed about the potential effects of the race relations training programs. Both blacks and whites were expected to have higher Perceived Discrimination Against Blacks scores after training. This would be true if training created an awareness about specific discriminatory acts that whites may have seen but have never perceived as being discriminatory. At the same time, blacks might perceive more discrimination as well, because training would serve to "remind" blacks of discriminatory behaviors that were occurring. Although this may be interpreted by some as a negative effect, it would appear to be a positive first step in the ultimate elimination of discrimination. Unless people recognize discrimination, they cannot act to eliminate it. Thus, in the short run, perceptions of discrimination would increase, but later, as fewer people commit discriminatory acts, the level of perceived discrimination should drop.

On both the Attitude Toward Racial Interaction and the Racial Climate scales, the expectation was that training would result in more favorable attitudes for both blacks and whites. This would be true on the RC scale (even though the subjects might also perceive more discrimination), because RC is essentially a measure of the commitment of the military to equal opportunity. In that kind of situation, subjects might report more favorable RC scores even though they saw more discrimination. The personal experience of race relations training itself in the military may provide a tangible example of service commitment.

The expectation also was that whites would report fewer reverse racism feelings as the result of training. No expectation about the effects of training on this scale for blacks existed because of the inability to clearly define the meaning of that scale for blacks.

In addition to possible major effects of training on the scale scores, other questions were raised: Was there evidence that blacks and whites were getting closer together in attitudes and perceptions as the result of training? Was there evidence that training was having any cumulative effect?

Effects of Unit Race Relations Training

Design I. The Design I samples were examined with the intent of answering two questions: (a) Was there any effect of training? and (b) Were blacks and whites closer together in attitudes and perceptions after training? A preliminary analysis conducted by comparing scores on the four RPI scales for the trained and untrained subjects showed there were no significant differences (Human Sciences Research, 1973). This suggested two possibilities: Either there were simply no effects of training on this sample, or the definition of training was not sufficiently sensitive. As a result, the data in this study were analyzed using a different definition of training. Four categories of training were defined:

Category I No training

Category II	Received some training, but not the 18-hour unit training curriculum[1]
Category III	Received only the 18-hour course
Category IV	Received the 18-hour course plus other training.

Using these categories, it was possible to answer another question about training effects: Is there any cumulative effect of training? That is, do people with more training have more favorable attitudes and perceptions?

Assignment to trained and untrained categories during this research was something over which the researchers had no control. Therefore it was not possible to insure that all groups were equivalent in terms of demographic variables. The analyses were accomplished separately for blacks and whites to determine differences due to race; but because the sample sizes were too small, it was impossible to conduct additional analyses based on other variables that might be related to RPI scale scores.

This analysis indicated that there was no effect of training on the PDB scale or the FRR scale. There was evidence that training was having an impact on ATI and RC. It thus appeared that the development of the four categories of training provided a more sensitive variable across which to evaluate the effects of training.[2] Tables 3 and 4 show these results.

The effect of training category on the ATI scale was significant at the .05 level. There was no difference by race, and no significant interaction effect between race and training. These findings were in keeping with the results noted earlier that indicated that there were no differences in the attitudes of blacks and whites toward racial interactions.

Although there are differences across the four levels of training, the differences are very small. In addition, the overall pattern is not clear. Tests (Dunnett's For Comparisons with a Control) were made that compared Categories II, III, and IV with Category I. For white subjects there were significant differences between Category I and each of the other three categories (.01 level) (Edwards, 1968). For black respondents the only group that differed from the control group (Category I) was Category IV (.05 level), which included those with the most race relations training.

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[1]For Marine Corps personnel, this was the 20-hour curriculum.

[2]Time in service was included as part of the analysis, but there were no interactions between this variable and training; therefore, results are presented only by category of training and race.

Table 3

Total Sample--Category of Training on ATI Scale

	Average score for category			
	I	II	III	IV
Whites	73.09	75.12	74.40	75.96
Blacks	73.22	72.63	73.22	76.21

Source	SS	df	MS	F
Race	93.583	1	93.583	1.469
Category	672.970	3	224.323	3.520*
Race x category	170.468	3	56.823	.892
Error	204,480.689	3,209	63.721	

*Significant at .05.

Table 4

Total Sample--Category of Training on RC Scale

	Average score for category			
	I	II	III	IV
Whites	65.85	67.62	65.28	67.99
Blacks	62.61	63.61	60.99	63.26

Source	SS	df	MS	F
Race	1,443.154	1	1,443.154	36.884**
Category	380.804	3	126.935	3.244*
Race x category	25.671	3	8.577	.219
Error	125,577.262	3,209	39.127	

*Significant at .05.
**Significant at .01.

Table 4 shows the effects of category of training on the RC scale. The effect of training was significant at the .05 level. There were significant differences by race, but no interaction effect between category of training and race.

Although there are statistical differences across training category on this scale, the differences are minor, and the trend is not consistent from Category I through Category IV. For whites, Categories II and IV are significantly different from Category I (.01 level) and for blacks, none of the trained categories differ from Category I.

Service Training Effects. To determine whether the same patterns of results were occurring for individual services, the analysis was repeated for two of the services separately. The sample sizes in the other two services were not sufficient to repeat the analysis in all four services.

For Service A there was a training effect for three scales--PDB, ATI, and RC. Tables 5 through 7 show these results.

On the PDB scale, there were large differences by race. Training was significant at the .05 level. In addition, the interaction between race and category of training was significant at the .05 level. There were no significant differences between the untrained category and the trained

Table 5

Service A--Category of Training on the PDB Scale

	Average score for category			
	I	II	III	IV
Whites	45.96	46.02	47.02	45.53
Blacks	65.13	61.13	67.86	67.30

Source	SS	df	MS	F
Race	62,181.856	1	62,181.856	449.702**
Category	1,361.201	3	453.734	3.281*
Race x category	1,093.563	3	364.521	2.636*
Error	119,744.851	866	138.273	

*Significant at .05.
**Significant at .01.

Table 6

Service A--Category of Training on the ATI Scale

	Average score for category			
	I	II	III	IV
Whites	72.30	76.09	74.00	77.38
Blacks	76.14	73.07	75.61	79.88

Source	SS	df	MS	F
Race	99.490	1	99.549	1.491
Category	834.563	3	278.188	4.167**
Race x category	437.934	3	145.978	2.187
Error	57,811.023	866	66.756	

**Significant at .01.

Table 7

Service A--Category of Training on the RC Scale

	Average score for category			
	I	II	III	IV
Whites	68.27	69.12	65.85	69.44
Blacks	66.88	67.17	62.44	63.64

Source	SS	df	MS	F
Race	408.954	1	408.954	10.760**
Category	388.750	3	129.583	3.410*
Race x category	120.928	3	40.309	1.061
Error	32,912.160	866	38.00	

*Significant at .05.
**Significant at .01.

categories for whites; blacks in Category II scored significantly lower than those in the untrained group.

There was also a significant difference on ATI scores across training category (.01 level). Again, there was no consistent pattern across the four levels of training. Whites in Categories II and IV received significantly higher ATI scores than individuals in Category I. There was no difference between blacks in the trained categories and blacks in Category I.

On the RC scale, training effects across the four categories was significant at the .05 level. There was no significant difference between whites in the Category I and the trained groups. There was a difference for blacks between Category I and Category III (.05 level).

For Service B, significant findings were obtained only for ATI and RC. Category of training on the ATI scale was significant at the .05 level (Table 8). Unlike Service A, for this service the overall pattern is a consistent one. For whites, individuals in Categories III and IV scored significantly higher on the ATI scale than individuals in Category I. For blacks, there were no significant differences between the trained and untrained categories.

Table 8

Service B--Category of Training on ATI Scale

	Average score for category			
	I	II	III	IV
Whites	73.80	75.00	75.92	77.05
Blacks	75.38	75.34	77.54	77.81

Source	SS	df	MS	F
Race	107.051	1	107.051	2.199
Category	480.661	3	160.220	3.292*
Race x category	27.192	3	9.064	.186
Error	54,856.805	1,127	48.675	

*Significant at .05.

On the RC scale (Table 9) differences by training category were also significant at the .05 level. Again, the pattern is consistent from Category I through Category IV. Black and white individuals in Categories III and IV received significantly higher scores than individuals in Category I.

Table 9

Service B--Category of Training on RC Scale

	Average score for category			
	I	II	III	IV
Whites	63.91	67.18	68.11	71.45
Blacks	58.26	60.32	64.60	66.50

Source	SS	df	MS	F
Race	1,375.053	1	1,375.053	42.073**
Category	283.870	3	94.623	2.895*
Race x category	4.983	3	1.661	.051
Error	36,833.555	1.127	32.683	

*Significant at .05.
**Significant at .01.

In summary, results of Design I analyses indicated that there were differences on the RPI scales as the result of race relations training. Although dividing the sample into two groups--t ined and untrained--did not yield significant results, examining the samples by four categories of training showed significant differences. Scores tended to differ across categories of training on the ATI scale and the RC scale. This was also true for two of the services examined using this design. One of the services also had a difference across training level on the PDB scale.

Where significant differences occu d, they tended to be in the directions expected. People who had received training tended to have more favorable attitudes on the ATI and RC scales. There was little evidence that blacks and whites were coming closer together in their attitudes. However, it did appear that there was some accumulation effect. Those in the categories representing the most extensive training received more favorable scores.

Design II. One installation was administered the RAPS in a pretest-posttest design with no control group. This was done because 4 hours of the 18-hour block of instruction had been given between the pretest and posttest. The results were analyzed by calculating the significance level of the changes from pretest to posttest. The results are shown in Table 10.

Table 10

Changes from Pretest to Posttest for a Sample Receiving Only 4 Hours of the 18-Hour Curriculum

	Whites (N = 89)		Blacks (N = 27)	
	Average change	Significance level	Average change	Significance level
PDB	+ .13	n.s.	+ .26	n.s.
ATI	-1.53	.01	-3.52	.05
FRR	-1.91	.01	- .26	n.s.
RC	-1.04	n.s.	+1.41	n.s.

Prior preliminary research on the RPI had revealed a potential for testing effects on repeated administrations of the instrument, and showed that these effects may be influenced by differences on various demographic characteristics of the respondents. Therefore, a special analysis was conducted to determine possible testing effects, because some designs required retesting. This analysis indicated significant testing effects for the ATI scale (Appendix). Such an effect causes scores to decline on the ATI scale as the result of testing. Without a control group, therefore, changes on the ATI scale cannot be attributed solely to training effect. For whites, there was a significant decline in the scores on the FRR scale. This indicated that white respondents were agreeing less with reverse racism type statements. There were no other significant differences on the scales for either blacks or whites.

These results suggest that there were significant changes from pretest to posttest for this sample. This change cannot be attributed directly to the effects of the training because there was no control group. Changes could be the result of a number of factors other than race relations training. In any event, the absolute value of the change was quite small.

Design III. Design III was the most powerful of the three types of analyses. It involved two groups of military personnel that participated in the pretest as well as the posttest. One group, called the trained group, was given routine race relations training between the pretest and posttest. The other group, the control group, was not permitted to participate in any race relations training during the time between the pretest and the posttest. Because there were discrepancies in the assignment of individuals to the trained and control groups by local project officers, it was necessary to make some corrections in group assignment prior to analysis. Individuals who reported on the posttest that they had received race relations training during the previous 3 months were placed in the trained group, and all others were placed in the control group.

After the analysis of the trained and control groups, the two groups were combined and the total sample divided into two new groups: prior training, which included only those personnel who had race relations training prior to the pretest; and no prior training, which included those who had no race relations training prior to the pretest. These groupings were made on the basis of responses so as to rule out questions included in the demographic section.

It was possible to examine several questions using this design:

1. Were the individuals assigned to trained and control groups initially similar in attitudes and perceptions?

2. Did prior training level have any effect on attitudes and perceptions?

3. Was there any cumulative impact of training?

4. Did people in the trained groups change by a different amount than people in the control group?

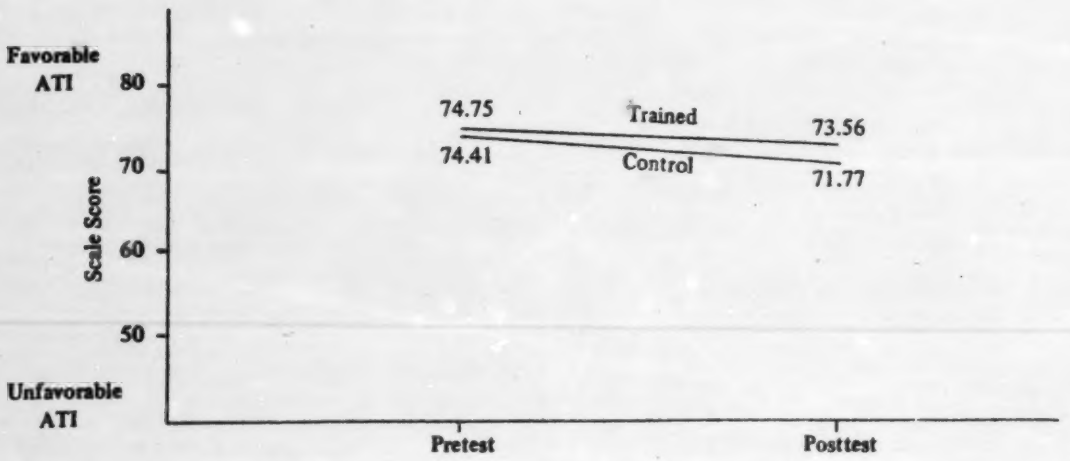
5. Were there any interactions between race and training group? That is, did blacks and whites get closer together or farther apart in their perceptions as the result of training?

Because of the large number of cells and the N that was obtained for this design, it was possible to conduct the analysis only for the total sample, not for the individual services. The N used in the analysis was 792.

Each of the questions listed above could be answered using three types of information: differences on pretests, differences on posttests, and analysis of the change scores. The statistical tests were made using analysis of variance.

Trained versus Control Groups. There were no significant differences either on the pretest or posttest scores for the trained versus the control groups on any of the four RPI scales. This indicated that there were no differences between the two groups with respect to the RPI scale scores.

To determine extent of changes from pretest to posttest, change scores were calculated on the difference from pretest to posttest for each person. Analysis of these difference scores for the two groups indicated that training had a significant effect on only one of the four scales--ATI. Figure 1 shows this result. The scores for both the trained and untrained respondents tended to become less favorable from the pretest to the posttest (this effect was primarily attributable to the testing effect). There was also a significant difference in the amount of change (.01 level); the trained group tended to change less than the control group.

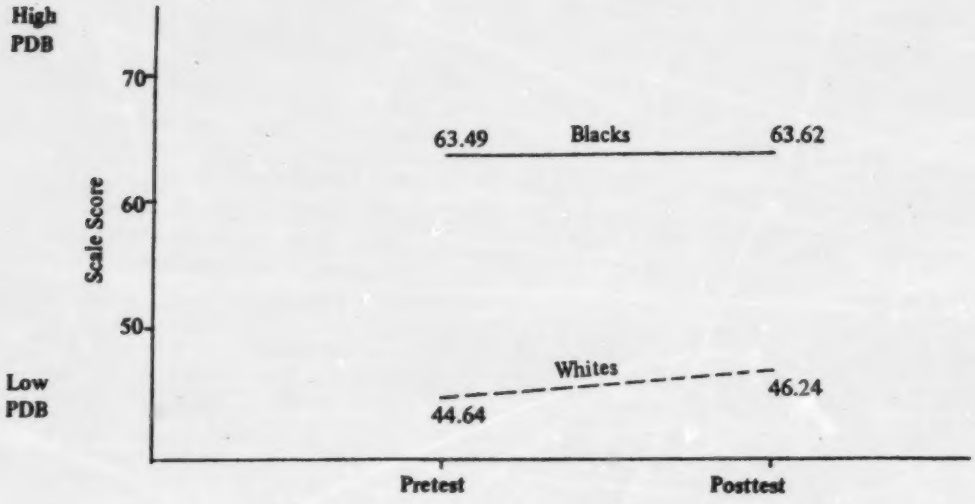


F (differences by group) = 8.156 (df = 1; 784)**

**Sig at .01

Figure 1. Changes on the ATI scale for trained and control groups.

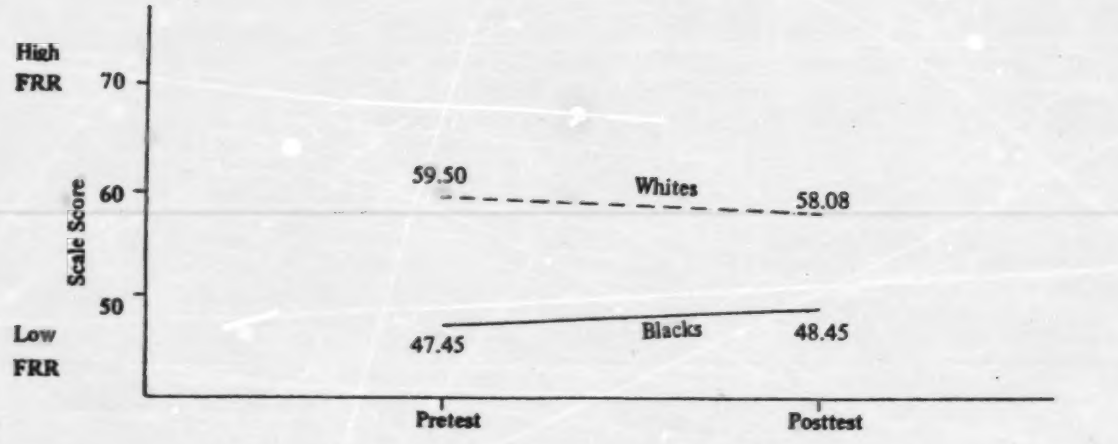
There were also significant differences in the amounts of change by race, independent of training group, on two scales--PDB and FRR. Figures 2 and 3 show these results. Blacks tended to see about the same level of discrimination against blacks on both pretest and posttest. Whites, however, tended to receive higher PDB scores on the posttest than on the pretest. On the FRR scale, the tendency was for blacks and whites to come



F (differences by race) = 6.883 (df = 1; 784)**

**Sig. at .01

Figure 2. Changes on the PDB scale for blacks and whites.



F (differences by race) = 8.787 (df = 1; 784)**

**Sig at .01

Figure 3. Changes on the FRR scale for blacks and whites.

closer together from pretest to posttest. The scores on FRR decreased slightly for whites and increased slightly for blacks. There were no clearcut reasons available to explain such a finding.

Prior Training versus No Prior Training. There were no differences on the pretests by prior training with the exception of the FRR scale. Table 11 shows the results on that scale. Although there was no significant difference by prior training level, the interaction between race and prior training level was significant at the .05 level. It appeared that whites who had received training prior to the pretest tended to disagree more with the items on the FRR scale, and blacks who had had prior training tended to disagree less.

Table 11

Effects of Prior Training Level on Pretest Scores on FRR Scale

	Category	
	No prior training	Prior training
Whites	58.14	60.88
Blacks	48.84	46.04

Source	SS	df	MS	F
Prior training	.103	1	.103	.001
Race	10,519.917	1	10,519.917	123.007**
Prior training x race	552.552	1	552.552	6.461*
Error	67,049.854	784	85.523	

*Significant at .05.
**Significant at .01.

For the posttest analysis, there were significant differences by prior training level on two of the scales--ATI and RC. Table 12 shows the differences on the posttest scores by prior training level on the ATI scale. Both blacks and whites who had prior training scored higher on the posttest than those who had not had prior training. This finding is difficult to interpret, however, since there was no difference by prior training level on the pretest. A possible explanation is that the RAPS reminded subjects who had prior training about the issues relating to their attitudes toward racial interactions. This could mean that, for a person who had been trained, the pretest acted as a catalyst. Thus, when

Table 12

Effects of Prior Training Level on Posttest Scores on ATI Scale

	Category	
	No prior training	Prior training
Whites	70.44	71.95
Blacks	72.77	75.48

Source	SS	df	MS	F
Race	547.712	1	547.712	8.255**
Prior training	283.356	1	283.356	4.271*
Race x training	22.529	1	22.529	.340
Error	52,015.176	784	66.347	

*Significant at .05.
**Significant at .01.

he took the survey a second time, the effect of the pretest and prior training resulted in a higher ATI score.

A similar finding resulted from the analysis of the RC scale (Table 13). Both blacks and whites tended to score higher on the RC scale on the posttest if they had had some prior training. This is true even though there was no difference on the pretest by prior training level.

In summary, the results of the Design III analyses indicated that individuals assigned to the trained and control groups were initially similar in attitudes and perceptions. There were no significant differences on the posttest scores attributable to training. There was a significant change from pretest to posttest on only one scale--ATI; attitudes tended to become slightly less favorable, although the scores for the trained group did not decline as much as scores for the control group. However, in comparing the prior training versus no prior training groups, personnel who had had some race relations training prior to the pretest scored more favorably on the ATI and RC scales than those who had not had such training.

Observations on the Effect of Unit Race Relations Training and the RAPS. Several observations can be drawn about the effects of unit training as the result of these analyses. First, training is having a minimal impact on all four scales. The absolute differences of scores across

Table 13

Effects of Prior Training Level on Pretest Scores on the RC Scale

	Category	
	No prior training	Prior training
Whites	67.65	70.84
Blacks	63.09	67.18

Source	SS	df	MS	F
Prior training	429.760	1	429.760	10.734**
Race	560.966	1	560.966	14.011**
Prior training x race	.034	1	.034	.001
Error	31,388.642	748	40.037	

**Significant at .01.

training level are very small, although statistical significance on some scales is frequently attained. In general, it appears that most changes are occurring on the ATI scale and, next, on the RC scale.

In general, the impact of training was in the anticipated directions, although the evidence is insufficient to establish any clear patterns. On the sample in which there were significant PDB training effects, there were no significant differences between individual training categories and the untrained category for either blacks or whites. On the ATI scale, however, those in the training categories showed more favorable attitudes toward racial interactions than those in the untrained group. The analysis of the experimental design also showed that individuals with prior training reported more favorable attitudes toward racial interaction than those with no prior training. On the FRR scale, there was no significant training effect. In the one case in which there was evidence of an interaction between race and prior training level, the FRR scores for whites appeared slightly lower for the group that had had prior training. On the RC scale, it appeared that training increased RC scores for whites, although the evidence was mixed for black respondents.

The only interactions between race and training category occurred in one case on the FRR scale. This suggested that, in general, there was little support for the idea that blacks and whites would be closer in their attitudes and perceptions as the result of training.

There was some indication that training had a cumulative effect. Individuals in the highes categories of training tended to differ more from untrained individuals than did those in categories representing less training. On the other hand, in the experimental designs in which prior training level was a variable, there was no evidence that the accumulation of training had a significant effect.

Effects of Race Relations Training on School Samples

This section includes a report of the analysis of the effects of race relations training programs other than the 18-hour unit training curriculum. This type of training, given in formal military courses, was of two types: (a) the 4- to 6-hour blocks of instruction in race relations given during recruit training, technical school courses, and leadership courses; and (b) blocks of instruction given at race relations facilitator training schools. In these courses, students train to become race relations instructors.

Unlike the basewide sample results, which were presented earlier, school samples could not be combined into a total sample for the purpose of comparisons. The schools were primarily directed at specific types of subjects, such as NCO's or personnel in a specific career field. In general, persons attending the same types of courses were considered together, but results from different schools were analyzed separately. Because it was not possible to control for the number of blacks included in these samples, in many cases the sample sizes for blacks were too small for analysis.

The specific statistical tests used varied according to the type of design. In designs with a trained and a control group, the mean difference scores were calculated by subtracting the pretest results for each subject and then compared, using a t test. When there was no control group, the statistic used was the Sandler's A-statistic (Runyon & Haber, 1971).

Because of the need to analyze school samples separately and because of the small number of blacks, it was not possible to look for any convergence of attitudes and perceptions for blacks and whites.

The most intensive, comprehensive type of training in race relations was given at the race relations facilitator courses, which lasted from 2 to 4 weeks. The purpose of these schools was to train people to teach race relations courses at the unit level. All students were volunteers. Table 14 shows the results.

As noted earlier, individuals attending race relations facilitator courses tended to be a special group of people whose attitudes and perceptions were generally more positive than those of the population at large. For whites attending these schools, there were significant changes. The perceptions of discrimination against blacks increased significantly during the period of the course, and the scores on the FRR

Table 14

Changes on Scale Scores for Students Attending Race Relations Instructor Training Courses

	Whites (N = 61)		Blacks (N = 58)	
Scale	Pre to post change	Significance level	Pre to post change	Significance level
PDB	+6.41	.01	-.13	n.s.
ATI	+ .31	n.s.	-.48	n.s.
FRR	-3.39	.01	+.71	n.s.
RC	+ .08	n.s.	-.68	n.s.

scale decreased significantly. There were no significant changes for the black respondents.

It is interesting to note that in nearly all the designs in which pretests and posttests were given, there was a significant decline in attitudes toward racial interaction. This result was attributed to a testing effect. However, in this sample, there was no significant decline in the ATI score. This finding suggests that there may be sufficient motivation during these intensive training experiences to prevent the decline in ATI scores that appears to occur as the result of testing.

Another training course included a large sample undergoing leadership training that included approximately 6 hours of race relations training. There was no control group for this sample. The changes in this sample from pretest to posttest are shown in Table 15. Significant differences on all four scales appeared for white subjects. The results on the PDB, FRR, and RC scales are all in the direction expected. That is, the subjects perceived more discrimination against blacks, expressed fewer backlash feelings, and had higher scores on the RC scale. The results on the ATI scale are difficult to interpret because of the testing effect on that scale, which, in general, caused scores to decline from pretest to posttest. Without a control group, it was not possible to determine the actual effect of training in this sample, even though the change was significant.

Table 16 shows the results for two similar samples of white subjects undergoing leadership training that included 4 hours of race relations training. For one of the samples, the only change was on the ATI scale and was significant at the .05 level. This change was in the direction

Table 15

Changes on Scale Scores from Pretest to Posttest for White Students Attending Leadership School

	(N = 623)	
	Pre to post change	Significance level
PDB	+1.59	.01
ATI	-4.31	.01
FRR	-1.76	.01
RC	+1.32	.01

Table 16

Changes on Scale Scores from Pretest to Posttest for Two Samples of White Students Attending Leadership School

	Pretest to posttest change	Significance level
Sample 1 (N = 19)		
PDB	+ .09	n.s.
ATI	- .34	.05
FRR	-1.71	n.s.
RC	+1.23	n.s.
Sample 2 (N = 58)		
PDB	+1.95	.05
ATI	-2.73	.01
FRR	-2.91	.01
RC	+1.47	n.s.

normally expected as part of the testing effect. The other changes were in the directions expected, even though they were not statistically significant. For the other sample, PDB changes were significant at the .05 level. Changes on the ATI and FRR scales were significant at the .01 level. All changes were in the expected directions.

Another sample tested included white officers undergoing military and civilian advanced training that included race relations instruction. Table 17 shows that there were no significant differences in the changes for the trained groups when compared to the untrained groups.

Table 17

Analysis of Changes for Officers With and Without Race Relations Training

Scale	Trained (N = 93) mean change	Untrained (N = 83) mean change	Significance level
PDB	+1.13	+ .24	n.s.
ATI	-1.49	-1.88	n.s.
FRR	- .89	-2.73	n.s.
RC	-2.66	-2.14	n.s.

The samples included several technical military courses that contained 4-hour blocks of instruction in race relations. These included supply, munitions, and similar schools. The research design called for trained and untrained samples at these locations. The changes from pretest to posttest for these groups are shown in Table 18, which shows the variation in training effect from sample to sample. There was a significant difference in change scores for the trained versus untrained groups on the PDB for two of the four samples, but in one case the direction was positive, and in the other it was negative. There were no differences on the ATI scale. There was a significant difference on the FRR scale for one of the samples and a difference on the RC scale on one sample. In these cases, the FRR score declined for the trained group and increased for the control group, and became less favorable on the RC scale for the trained group and more unfavorable for the control group. The finding on the RC scale was not in the expected direction.

Table 19 shows a similar analysis for recruit samples. Recruits for three services were surveyed upon entering and upon completion of recruit training. Half the recruits received 4-hour blocks of race relations training and half received none. Training for recruits normally consists of lecture types of courses. The change scores for the trained and

Table 18

Analysis of Changes for White Students at Technical School Courses With and Without Race Relations Training

	Trained (N = 72) $\bar{X}$	Untrained (N = 61) $\bar{X}$	Significance Level
Sample 1			
PDB	+ .99	+1.66	n.s.
ATI	- 5.45	- 4.87	n.s.
FRR	- 1.46	+ .04	n.s.
RC	- .85	+2.14	.05
	Trained (N = 166) $\bar{X}$	**Untrained (N = 115)** $\bar{X}$	**Significance Level**
Sample 2			
PDB	+1.02	- .07	n.s.
ATI	- 3.64	- 3.46	n.s.
FRR	- 1.03	- 1.88	n.s.
RC	.00	+ .70	n.s.
	Trained (N = 75) $\bar{X}$	**Untrained (N = 83)** $\bar{X}$	**Significance Level**
Sample 3			
PDB	+2.47	- .57	.05
ATI	- 4.04	- 3.27	n.s.
FRR	- 1.96	- 1.53	n.s.
RC	+1.32	+ .23	n.s.
	Trained (N = 38) $\bar{X}$	**Untrained (N = 36)** $\bar{X}$	**Significance Level**
Sample 4			
PDB	- 3.43	+1.93	.01
ATI	- 1.93	- 4.51	n.s.
FRR	- 4.90	+1.01	.01
RC	- .08	+1.15	n.s.

Table 19

Analysis of Changes from Pretest to Posttest for White Recruit Samples With and Without Race Relations Training

	Trained (N = 68) $\bar{X}$	Untrained (N = 60) $\bar{X}$	Significance Level
Service A			
PDB	+3.04	+5.00	n.s.
ATI	-4.00	-8.54	.01
FRR	+ .75	+6.73	.01
RC	+3.66	+8.55	.01
	Trained (N = 53) $\bar{X}$	**Untrained (N = 56)** $\bar{X}$	**Significance Level**
Service B			
PDB	+ .50	+ .19	n.s.
ATI	-4.28	-3.39	n.s.
FRR	-1.39	+1.39	n.s.
RC	+2.49	+4.68	n.s.
	Trained (N = 117) $\bar{X}$	**Untrained (N = 108)** $\bar{X}$	**Significance Level**
Service C			
PDB	- .69	-3.14	.05
ATI	-2.62	- .64	n.s.
FRR	+ .10	+ .54	n.s.
RC	- .89	+ .32	n.s.

untrained samples were compared by service.[3] This was done separately because of the possibility that services were recruiting different types of people; the groups could not legitimately be combined.

[3]The Marine Corps was excluded from the analysis because no race relations training was given to Marine Corps recruits. Also, blacks were eliminated from the analysis because of the small samples obtained.

Three of the four scales for Service A showed significant results. The directions were as expected on the ATI and the FRR scales, but on the RC scale the untrained samples increased their scores more than the trained group. On Service B there were no significant differences, and on Service C the PDB scale results were significant at the .05 level. In this case, trained and untrained subjects perceived less discrimination against blacks, but the scores of the untrained group declined the most.

In summary, the findings indicate that there were many more tests of training effectiveness for which there were no significant findings than there were for significant findings. Even in those cases where differences were significant, the total changes in scale scores were small. However, in a review of results that showed significant differences, the overall patterns of the effects of training do show up. Tables 20 through 23 show these results. Only results on ATI scales are shown where there were control groups because of the testing effect on that scale. When shown in this way, the patterns become quite obvious.

On the PDB scale, white subjects received higher scores after they had received training; that is, they perceived a higher level of discrimination against blacks. There were not enough samples of blacks on which significant changes could be tested to comment about the effects of training on those subjects. However, because blacks start out at a much higher level on the PDB scores than do whites, it appears that the total effect of the training programs would be to bring blacks and whites closer together in perceptions about discrimination--a desirable result. Furthermore, if white respondents begin to perceive discriminatory acts when they occur, as would be reflected by higher PDB scores, then they can begin to act to eliminate those behaviors. Thus, in the short run, higher PDB scale scores can be considered positive findings because they can eventually lead to a reduction in the total level of discrimination.

On the ATI scale, training appears to be associated with higher scores for both blacks and whites. It should be noted that persons of both races already indicated by their responses to this scale that they have favorable attitudes toward racial interaction. The changes, therefore, may be part of the tendency for individuals who agree with an idea to be easily persuaded in a positive direction.

The analysis also indicates that training causes whites to have lower FRR scale scores. This is a positive finding because it is desirable that whites not feel that blacks are getting better treatment at their expense or that they have reason to fear blacks.

The results of the effects of training on the RC scale are not as clear. In four cases RC scale scores became higher, and in two cases they became lower. The expectation was that RC scale scores would become higher with training, but this was not consistently the case.

Table 20

Summary of Significant Training Effects on the PDB Scale

Type and Size of Sample	Type of Training	Type of Effect	Race	Direction of Training Effect
Basewide Sample, Service A (N=867)	18-Hour Course	Main Effect of Training	Blacks and Whites	Mixed [a]
Race Relations School (N=61)	2 - 4 Week Course	Main Effect of Training	Whites	Higher Scores*
Officer Leadership School Sample (N=623)	6-Hour Course	Main Effect of Training	Whites	Higher Scores*
School Sample, Leadership Training (N=58)	4-Hour Course	Main Effect of Training	Whites	Higher Scores
School Sample Technical Training (N=158)	4-Hour Course	Main Effect of Training	Whites	Higher Scores*
School Sample Technical Training (N=74)	4-Hour Course	Main Effect of Training	Whites	Lower Scores*
School Sample Service C Recruits (N=225)	4-Hour Course	Main Effect of Training	Whites	Higher Scores*

*Findings marked with an asterisk were significant at the .01 level. All others were significant at the .05 level.

[a] In tests across the four categories of training, there were some significant differences that were in part attributable to differences in scores for the levels of training rather than differences between the untrained and trained subjects. When there was no consistent pattern across the trained and untrained subjects, the results are identified as "mixed."

Table 21

Summary of Significant Training Effects on the ATI Scale[a]

Type and Size of Sample	Type of Training	Type of Effect	Race	Direction of Training Effect
Basewide Sample (N=3,209)	18-Hour Course	Main Effect of Training	Blacks and Whites	Higher Scores
Service A, Basewide Sample (N=867)	18-Hour Course	Main Effect of Training	Blacks and Whites	Higher Scores*
Service B, Basewide Sample (N=1,128)	18-Hour Course	Main Effect of Training	Blacks and Whites	Higher Scores
Basewide Sample (N=785)	18-Hour Course	Main Effect of Prior Training on Posttest Scores	Blacks and Whites	Higher Scores
Basewide Sample (N=785)	18-Hour Course	Main Effect of Training	Blacks and Whites	Higher Scores*
Recruit Sample (N=128)	4-Hour Course	Main Effect	Whites	Higher Scores*

*Findings marked with an asterisk were significant at the .01 level. All others were significant at the .05 level.

[a] Significant effects on ATI scale on samples without control groups are not reported because of testing effects on that scale. Scores on ATI scale are reported as higher where trained groups received higher scores than untrained groups, even though both groups have declined.

Table 22

Summary of Significant Training Effects on the FRR Scale

Type and Size of Sample	Type of Training	Type of Effect	Race	Direction of Training Effect
Basewide Sample (N=89)	4-Hours of 18-Hour Course	Main Effect of Training	Whites	Lower Scores
Basewide Sample (N=785)	18-Hour Course	Interaction between Prior Training Level and Race on Pretest Scores	Blacks and Whites	Lower Scores for Whites; Higher Scores for Blacks
Race Relations School Sample (N=61)	2 - 4 Week Course	Main Effect of Training	Whites	Lower Scores*
Officer Leadership School Sample (N=623)	6-Hour Course	Main Effect of Training	Whites	Lower Scores*
School Sample Technical School (N=74)	4-Hour Course	Main Effect of Training	Whites	Lower Scores*
Recruit Sample (N=128)	4-Hour Course	Main Effect of Training	Whites	Lower Scores*

*Findings marked with an asterisk were significant at the .01 level.
All others were significant at the .05 level.

Table 23

Summary of Significant Training Effects on the RC Scale

Type and Size of Sample	Type of Training	Type of Effect	Race	Direction of Training Effect
Basewide Sample (N=3,209)	18-Hour Course	Main Effect of Training	Blacks and Whites	Higher Scores
Basewide Sample, Service A (N=1,128)	18-Hour Course	Main Effect of Training	Blacks and Whites	Mixed
Basewide Sample Service B (N=867)	18-Hour Course	Main Effect of Training	Blacks and Whites	Higher Scores
Basewide Sample (N=785)	18-Hour Course	Main Effect of Prior Training on Posttest Scores	Blacks and Whites	Higher Scores
Officer Leadership School Sample (N=623)	6-Hour Course	Main Effect of Training	Whites	Higher Scores*
School Sample Technical School (N=135)	4-Hour Course	Main Effect of Training	Whites	Lower Scores
Recruit Sample (N=128)	4-Hour Course	Main Effect of Training	Whites	Lower Scores*

*Findings marked with an asterisk were significant at the .01 level.
All others were significant at the .05 level.

In a number of cases, race relations training appeared to be having a significant effect. Furthermore, in most of those cases, the directions of the changes were those that might be expected from such programs. The magnitude of the changes was small, however, suggesting that changes as the result of race relations training might be occurring on other dimensions or might not be occurring at all.

Knowledge of Race Relations Content Items

As noted earlier, several samples of subjects were asked to complete a content knowledge questionnaire, to determine if race relations training increased knowledge in the race relations area. The content questions were developed by reviewing course curriculum materials and selecting key areas that appeared to be most likely to be covered by such courses. The content questionnaire was exploratory in nature and did not receive the attention in its development that a more full-blown test might have. It was used to examine another area besides the attitudinal ones in which training might be effective.

The content questionnaires were given, using two designs, a pretest-posttest design and a posttest-only design. Because of the small N's that were ultimately obtained, it was necessary to use only the posttest. An attempt was made to determine if there was a practice effect. On untrained samples, there was no evidence of testing effect. On the trained samples, there was evidence of such an effect although the test was obscured by demographic differences. Despite these difficulties, and because of the small sample sizes, the analyses were made using posttest scores only.

The analyses were conducted, using one-way analyses of variance. The dependent variable was number of questions marked correctly by the respondents. Trained subjects were expected to score higher on the test than untrained subjects. Furthermore, it was expected that subjects who received greater amounts of training would receive higher scores. Table 24 shows the results for the total sample when the trained and untrained subjects were compared. It indicates that, although there was no significant difference between the scores of whites and blacks, there was a significant difference by training status--those who had received training scored higher.

Because the data were collected for various levels of training, it was possible to make some comparisons across these levels. Table 25 shows the mean scores across four levels of training: recruit training, technical school, 18-hour curriculum, and race relations instructor school. The recruit and technical school students received 4 hours of instruction in race relations.

Table 24

Average Scores for Black and White, Trained and Untrained, Respondents on the Content Questionnaire

	Trained	Untrained	Average
Blacks (N = 172)	7.92	7.17	7.55
Whites (N = 701)	7.75	7.40	7.58
Average	7.84	7.29	7.57

F (race) = n.s.
F (training) = 5.38 (df = 1; 872)*

*Significant at .05.

Table 25

Average Scores on Content Questionnaire for Students at Different Levels of Race Relations Training

	Blacks	Whites
Recruit sample	6.57	5.67
Technical school sample	8.05	7.49
18-hour course	6.64	6.61
Race relations school	8.57	9.39

F (blacks) = 5.31 (df = 3; 103)**
F (whites) = 37.35 (df = 3; 242)**

**Significant at .01.

Individuals completing the race relations instructor training schools appeared to be at one end of this range of means; the recruit samples were the other end. This pattern was not consistent across all levels, however; subjects who completed the 18-hour unit training course scored slightly lower than did the subjects who completed the 4-hour course in the technical school. Subjects in the technical schools perhaps were more attuned to a training environment and therefore scored better on the tests.

In summary, it appeared that training does increase knowledge, as it is measured on the instrument used. As with the RPI scale scores, there may be other knowledge areas covered by such training that are not included in the instrument. But these findings, taken together with findings about training effects on the RPI scales, support the idea that training has an effect in the desired directions.

Evaluations of Race Relations Training

To obtain more information about the way military personnel felt about the race relations training programs, a sample of Army personnel who received race relations training ranging from the 4-hour blocks to the 4-week blocks was asked to complete a questionnaire concerning their subjective reactions to the training. The questions covered three general areas: the overall value or importance of the training, the quality of presentation, and the effectiveness of the training.

Value of Training. When asked how valuable discussions were in increasing awareness and understanding of racial problems in several areas, approximately 75% of the subjects indicated they were very valuable or somewhat valuable. There were no significant differences in the responses of blacks and whites to these questions (Table 26).

Table 26

Percentage of Respondents Reporting Aspects of Training Courses as Valuable

	Somewhat valuable or very valuable
Personal racism	78.0%
EOT policies	76.2%
Concepts of prejudice and discrimination	75.8%
Institutional racism	70.0%
Minority history and culture	71.6%

When asked about the importance of race relations training for Army personnel, 63.7% said they felt it was very important, 27.4% said it was somewhat important, and only 5.3% said it was not important. When asked about the importance of race relations training compared to other Army training programs, 82.6% said it was important or extremely important, 8.9% said it was not very important, and 4.2% said it was not important at all.

Quality of Training. Subjects were also asked if the material was interesting, easy to understand, and relevant. When asked if it was interesting, 51.3% said it was interesting, 39.7% said it was somewhat interesting, and only 5.8% said it was not interesting. Most respondents felt the presentations were clear and easy to understand; 67.4% said presentations were very clear, 27.4% said the presentations were somewhat clear, and 2.1% said they were not clear. Subjects who thought the material was relevant to an understanding of the racial situation made up 45.8% of the sample. Another 43.2% thought it was somewhat relevant, and 5.8%, not relevant.

Effectiveness of Training. When asked if they saw the racial situation in the Army differently as the result of attending the course, 77.8% of the subjects said they saw it somewhat differently or very differently; 19% said they did not see the racial situation any differently. When asked if the course resulted in improved interpersonal relationships among students in the course, 24.3% of the subjects felt relationships were very improved; 49.7% felt relationships were somewhat improved; and 22.1% felt there was either no change or relationships were worse. In addition, 54.2% of the subjects said they were more motivated to eliminate racial discrimination as a result of the training; 36.8% felt there was no change in their motivations; and 4.7% said they were less motivated.

In summary, these results suggest that, in general, Army personnel had positive attitudes toward the training programs. They seemed to feel that such programs were important and, in addition, that the material presented was interesting, clear, and relevant. The subjects also indicated that they saw the racial situations differently and that they were more motivated to eliminate racial discrimination, as the result of attending the courses.

Interviews with Instructors

To better understand the race relations training program, interviews were conducted with 40 race relations instructors in the field as part of the data collection activities. These instructors taught all types of race relations courses, including recruit training, NCO and officer level race relations courses, and the 18-hour DRRI curriculum.

Most of the instructors had themselves been trained to conduct race relations courses; 12 had attended DRRI, and 18 had attended some type of discussion leader or moderator course. However, 10 of the 40 instructors reported they had received no race relations training at all, not even the 18-hour curriculum.

These instructors described a broad range of things they were trying to accomplish: 16 of the 40 said they were trying to "increase awareness," 11 said they were trying to "provide understanding," 7 said they were trying to "change behaviors," and 3 reported that their goal was to "change attitudes." These responses suggested that goals were somewhat ill-defined and varied from instructor to instructor. Although their goals varied greatly, more than 80% of the instructors felt they were able to accomplish their own goals to some extent.

Overall, more than half of these instructors indicated the race relations training programs were having positive impact. However, 11 of the 40 instructors felt the results were both positive and negative, and 5 felt the training was having a negative impact.

When asked the level at which they felt the training should be directed, the instructors expressed a broad range of ideas. Eleven instructors thought the training should be directed at the company level. Four thought training should be directed at the battalion level. Eight instructors chose senior NCO's as the target for training, and seven chose senior officers. Four instructors felt it should be given upon entry into the service.

In general, instructors were not expressing any clearly defined set of ideas about the race relations programs. They had had different training experiences themselves, and a large number had received no training at all. Their goals varied greatly, and many felt their accomplishments were mixed or were negative. Moreover, the instructors were not certain who should be the targets of training.

SUMMARY AND CONCLUSIONS

During recent years, the military services have become more responsive to the need to eliminate discrimination, and many programs have been set in motion to insure that the policy of equal opportunity and treatment is implemented fully. Without effective feedback from military personnel about their feelings and about the discrimination they see in the service, these programs may well lose their direction or, at the very worst, become counterproductive.

The military must develop and implement meaningful programs directed to the specific needs of the individual--whatever his or her attitudes and perceptions may be. To do this, the military equal opportunity and race relations program managers must work in two directions: to eliminate

discriminatory behaviors and to encourage interracial communication and understanding. The first is the only way to insure that perceptions of discrimination are not reinforced. It is not possible to convince people that something does not exist if they see it in daily life. The second is the means whereby a convergence of the perceptions of blacks and whites can be attained.

How does training act to help solve these problems and what results can we expect? Training should, at a minimum, accomplish two purposes. First, it would make people aware of the discriminatory practices. Second, it would motivate people to eliminate such behaviors. Thus, training would in the short run result in heightened perceptions of discrimination, because the trained people would recognize its occurrence. In the longer run, however, as more people are trained and stop their discriminatory behaviors, the perceptions would decrease.

It does not appear reasonable to expect a great deal of change in attitudes and perceptions as the result of training. Although the findings consistently showed that training affected attitudes, these effects were "small," however statistically significant. In this context, small means the proportion of variance accounted for. Although no amount of discussion can change the fact that the effects were small, these effects should be considered from the standpoint of how difficult it is to change deeply rooted attitudes at all. In a sense, it is surprising to find that, as a result of only a few hours' training, significant changes were found in attitudes that were a function of total life experiences to that date. Pitting a few hours' training against the learnings of a lifetime appears at the outset to be an unfair match. This factor should be considered, as researchers try to interpret the meaning of the "small" effects of training.

Another factor working against change is the nature of the training assignment itself. Previous research has shown that training is more likely to be effective when participation is voluntary, a procedure that is not followed in the military (Amir, 1969).

Another reason for the failure to find large differences due to training may be that the people who are trained are not necessarily those whose behaviors are causing problems. That is, people may be made aware of the fact that others are discriminating, and thus they may perceive more discrimination. But until the discriminating persons are made aware of their behavior, total discrimination will remain constant. In any one group of subjects who receive training, therefore, the total change may be small. But the accumulation of trained students on any installation may lead to large changes.

During the course of the study, the researchers saw training given in a variety of settings. In some cases subjects were crowded into hot, dusty barracks and given lectures. In other cases the facilities were excellent. Some training lasted 18 hours; other training took only 4 hours. Some instructors were well prepared for their tasks, and others

were not prepared at all. Despite these difficulties, the results indicated significant effects from training, and with remarkable consistency of direction. Trained people did see more discrimination than did untrained people, and they did have more favorable attitudes than did untrained people. Although the research did not indicate why some training was effective and other training was not, it did indicate that training programs are having an effect.

In sum, the analyses of the effects of race relations training programs, the review of the race relations knowledge tests, and the interviews with race relations instructors, lead to several conclusions:

- Race relations training is having an impact on attitudes and perceptions as measured by the RAPS.
- The impact, in general, is very small when defined in terms of actual change on RAPS scale scores. This is true even though there were statistically significant results.
- Where changes occurred as the result of training, they tended to be in the following directions: higher PDB scores, higher ATI scores, and lower FRR scores. There was no clearly defined direction in which RC scale scores would be expected to go.
- There is evidence that trained subjects scored higher on content-type questions than did untrained subjects.
- Those who received training generally considered it to be valuable and important. They reported that the quality of training was good and said that they were more highly motivated to try to eliminate racial discrimination.
- Instructors who actually taught the courses appeared to have diverse goals and varied in their opinions about the best targets for training efforts.

The general conclusion of the analysis of the effects of race relations training programs is that the instrument does detect differences that result from training in the four attitudinal and perceptual areas measured by the RPI. This is not to say that the total impact of race relations training is measured by the RPI. The results of the content knowledge questionnaire indicated that changes were occurring in areas other than those measured by the RPI. It is possible that there are other ways in which training may have an impact but they are not addressed during the course of this project. Nevertheless, the basic goal was met--that of determining that the RPI can measure some of the changes that occur as the result of training.

Although this project was concerned primarily with the determination of the utility of the RAPS and did not assess training in any comprehensive evaluation, considerable information pertinent to training was obtained. Several recommendations were developed therefore about the training programs:

1. Training goals should be clarified and communicated to all those involved in race relations training programs.

2. If a formal RAPS system is implemented, race relations instructors must regularly learn the results of those surveys and be informed about the implications of the results for race relations training programs.

3. RAPS appears to be used primarily as a general measure of racial climate on a military installation. It was used in this research to measure training program effects, but that is not its most useful application. It also appeared, however, that there is at present no comprehensive measure specifically designed to assess the effects of race relations training programs. Such measures should be developed because training programs represent a major investment in time and money and instructors and program managers need feedback about the results of the effort. The RAPS can clearly be an important part of a comprehensive set of such measures.

4. Training itself must be investigated more thoroughly. Several questions arise that should be examined:

   - Why do changes in attitudes and perceptions occur in some training situations and not in others?
   - How does the format of a course interact with previous attitudes and perceptions to lead to change?
   - Who is most likely to change as the result of training?
   - Who is least likely to change?
   - What can be done to maximize changes in attitudes and perceptions that result from training?

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APPENDIX

EFFECTS OF TESTING ON RAPS SCORES

An important consideration in assessing the impact of race relations training within the context of the various experimental designs used in this project was the effect of responding to the RAPS questionnaire. In other words, did respondents who were otherwise similar but were administered the questionnaire twice differ in their scores from those administered the instrument only once?

This question was examined by comparing two groups of untrained subjects. One group received the instrument once and the other group received the instrument twice. Scores were then compared for the two groups using the posttest scores for the group that received the questionnaire twice.

The two groups were compared using a multiple regression analysis procedure in order to control for the possible biases due to demographic variables. This is equivalent to an analysis of covariance procedure (Kelly et al., 1969). Table A-1 shows the results on each of the four scales.

There is a significant testing effect on this untrained sample on the Attitude Toward Racial Interaction scale. The effect is to cause the ATI scale scores to decline on the posttest. On these samples, more than 5% of the variance on the ATI scale is apparently attributable to testing effect. This finding has serious implications for interpretations of findings using the test-retest design. Where there is no control group, it does not appear possible on the ATI scale to distinguish between changes due to testing effects and other causes of change such as training. Since the effect is to cause scores on the retest to be lower than scores on the pretest, in test-retest designs that do have an experimental and control group, the expectation is that both scores may decline, with the trained group declining less than the control groups.

Table A-1

Percent Variance Contribution (R^2) by Demographic Variable and Design

Component of variance	Scale scores			
	PDB	ATI	FRR	RC
Demographic variables	41.56	17.32	16.63	22.35
Off-duty contact Education Neighborhood Race Active duty time				
Testing effects	.11	5.21**	.10	.00
Total	41.67	22.53	16.73	22.35

**Significant at .01.

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1 USA Aviation Sch, CO, Ft Rucker, ATTN: ATST-D-A
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1 US Military Academy, West Point, ATTN: Ofc of Milt Ldrshp
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1 Ofc of Naval Rsch, Arlington, ATTN: Code 452
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1 NAVAIRSTA, Norfolk, ATTN: Safety Ctr
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1 AFHRL (DOJN) Lackland AFB
1 HQUSAF (INYSD)
1 HQUSAF (DPXXA)
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1 AF Log Cmd, McClellan AFB, ATTN: ALC/DPCRB
1 Air Force Academy, CO, ATTN: Dept of Bel Scn
5 NavPers & Dev Ctr, San Diego
2 Navy Med Neuropsychiatric Rsch Unit, San Diego
1 Nav Electronic Lab, San Diego, ATTN: Res Lab
1 Nav TrngCen, San Diego, ATTN: Code 9000-Lib
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1 NavTrngEquipCtr, Orlando, ATTN: Tec[illegible]
1 US Dept of Labor, DC, ATTN: Manpower Admin
1 US Dept of Justice, DC, ATTN: Drug Enforce Admin
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1 Nat Clearing House for MH-Info, Rockville
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1 C/Air Staff, Royal Canadian AF, ATTN: Pers Std Anal Br
3 Chief, Canadian Def Rsch Staff, ATTN: C/CRDS(W)
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1 Military Attache, French Embassy, ATTN: Doc Sec
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1 Prin Scientific Off, Appl Hum Engr Rsch Div, Ministry of Defense, New Delhi
1 Pers Rsch Ofc Library, AKA, Israel Defense Forces
1 Ministeris van Defensie, DOOP/KL Afd Sociaal Psychologische Zaken, The Hague, Netherlands